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FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110			DIXON, THOMAS A	
			ART UNIT	PAPER NUMBER
			3629	

DATE MAILED: 10/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/812,224

Applicant(s)

DAUGHTREY, RODNEY

Examiner

Thomas A. Dixon

Art Unit

3629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 3629

***Drawings***

1. New corrected drawings, filed 01/07/2002 are acceptable for examination, but are objected to, specifically though they meet the margin requirement they are of a worse quality than the drawings originally filed 03/19/01.

***Claim Objections***

2. Claims 8, 15, 19 are objected to because of the following informalities:

in claim 8, the phrase "the table depicts whether the status of the summary" appears to be incomplete.

in claim 15, the phrases "parsing a set of query" and "fail defer" is unclear.

in claim 19, the phrase "populate a summary table of evaluating fare rules and fares with a summary table" is confusing, it is further unclear which summary is being rendered in line 7..

Appropriate correction is required.

***Claim Rejections - 35 USC § 112 1<sup>st</sup> paragraph***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-14 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The computer or processor critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

A display, by itself is not a user interface in that it is not capable of displaying anything, it is simply a prop.

***Claim Rejections - 35 USC § 112 2<sup>nd</sup> paragraph***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 3629

4. Claims 5-7, 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

in claim 5 "the categories" lacks antecedent basis.

in claim 6 "pass, fail or defer" lack antecedent basis.

in claim 7 "the unique visual indicators"

in claim 13 "the query section"

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

"user interface" is not a statutory class, further it simply displays a table, and does not manipulate or change data, and therefore is not seen to be in the technological arts.

6. Claims 15-18 are not seen to be in the technological arts, no technology is involved and no data is manipulated or changed, but simply displayed, and therefore is not seen to be in the technological arts.

7. Claims 19-21 are not seen to be in the technological arts, but code per se, the instructions are simply on the medium and is not executed.

8. As an initial matter, the United States Constitution under Art. I, §8, cl. 8 gave Congress the power to "[p]romote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries". In carrying out this power, Congress authorized under 35 U.S.C. §101 a grant of a patent to "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition or matter, or any new and useful improvement thereof." Therefore, a fundamental premise is that a patent is a statutorily created vehicle for Congress to confer an exclusive right to the inventors for "inventions" that promote the progress of "science and the useful arts". The phrase "technological arts" has been created and used by the courts to offer another view of the term "useful arts". See *In re Musgrave*, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first test of whether an invention is eligible for a patent is to determine if the invention is within the "technological arts".

Art Unit: 3629

9. Further, despite the express language of §101, several judicially created exceptions have been established to exclude certain subject matter as being patentable subject matter covered by §101. These exceptions include "laws of nature", "natural phenomena", and "abstract ideas". See *Diamond v. Diehr*, 450, U.S. 175, 185, 209 USPQ (BNA) 1, 7 (1981). However, courts have found that even if an invention incorporates abstract ideas, such as mathematical algorithms, the invention may nevertheless be statutory subject matter if the invention as a whole produces a "useful, concrete and tangible result." See *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* 149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998).

10. This "two prong" test was evident when the Court of Customs and Patent Appeals (CCPA) decided an appeal from the Board of Patent Appeals and Interferences (BPAI). See *In re Toma*, 197 USPQ (BNA) 852 (CCPA 1978). In *Toma*, the court held that the recited mathematical algorithm did not render the claim as a whole non-statutory using the Freeman-Walter-Abele test as applied to *Gottschalk v. Benson*, 409 U.S. 63, 175 USPQ (BNA) 673 (1972). Additionally, the court decided separately on the issue of the "technological arts". The court developed a "technological arts" analysis:

The "technological" or "useful" arts inquiry must focus on whether the claimed subject matter...is statutory, not on whether the product of the claimed subject matter...is statutory, not on whether the prior art which the claimed subject matter purports to replace...is statutory, and not on whether the claimed subject matter is presently perceived to be an improvement over the prior art, e.g., whether it "enhances" the operation of a machine. *In re Toma* at 857.

In *Toma*, the claimed invention was a computer program for translating a source human language (e.g., Russian) into a target human language (e.g., English). The court found that the claimed computer implemented process was within the "technological art" because the claimed invention was an operation being performed by a computer within a computer.

11. The decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* never addressed this prong of the test. In *State Street Bank & Trust Co.*, the court found that the "mathematical exception" using the Freeman-Walter-Abele test has little, if any, application to determining the presence of statutory subject matter but rather, statutory subject matter should be based on whether the operation produces a "useful, concrete and tangible result". See *State*

Art Unit: 3629

*Street Bank & Trust Co.* at 1374. Furthermore, the court found that there was no "business method exception" since the court decisions that purported to create such exceptions were based on novelty or lack of enablement issues and not on statutory grounds. Therefore, the court held that "[w]hether the patent's claims are too broad to be patentable is not to be judged under §101, but rather under §§102, 103 and 112." See *State Street Bank & Trust Co.* at 1377. Both of these analysis goes towards whether the claimed invention is non-statutory because of the presence of an abstract idea. Indeed, *State Street* abolished the Freeman-Walter-Abele test used in *Toma*. However, *State Street* never addressed the second part of the analysis, i.e., the "technological arts" test established in *Toma* because the invention in *State Street* (i.e., a computerized system for determining the year-end income, expense, and capital gain or loss for the portfolio) was already determined to be within the technological arts under the *Toma* test. This dichotomy has been recently acknowledged by the Board of Patent Appeals and Interferences (BPAI) in affirming a §101 rejection finding the claimed invention to be non-statutory. See *Ex parte Bowman*, 61 USPQ2d (BNA) 1669 (BdPatApp&Int 2001).

#### ***Claim Interpretation***

12. Claims directed to an Apparatus must be distinguished from the prior art in terms of structure rather than function, *In re Danly* 263 F.2d 844, 847, 120 USPQ 582, 531 (CCPA 1959).

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1657 (bd Pat. App. & Inter. 1987). Thus the structural limitations of claim 1, 19, including a monitor are disclosed in Worldspan, Tanner, and Whitesage as described herein. Also as described the limitations of the claim do not distinguish the claimed apparatus from the prior art.

#### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1, 19 rejected under 35 U.S.C. 102(b) as being anticipated by Worldspan Accepts Fares  
Filed Via ATPCO Service.

As per Claims 1, 19.

Art Unit: 3629

Worldspan Accepts Fares Filed Via ATPCO Service discloses automated display of rules and fares.

14. Claims 1-6, 8-9, 12-17, 19- 20 rejected under 35 U.S.C. 102(b) as being anticipated by Tanner (WO 01/59590).

As per Claim 1.

Tanner (590) discloses:  
a fare evaluation result table that displays fare rule summaries for fares in slices of an itinerary, see figure 3.

As per Claim 2.

Tanner (590) further discloses the table is comprised of rows that represent fares, see figure 3, Adult, Approx. Tax, Total and columns that represent rule summaries, see rules.

As per Claim 3.

Tanner (590) further discloses the columns also represent price, see figures 3, Adult, Approx. Tax, Total.

As per Claim 4.

Tanner (590) further discloses the columns represent fare combinability restrictions, see figure 4B, QBNRHX in which Q represents "controlled", R represents "Round-trip No Restrictions", X represents "weekday" (according to the FAREDEX Translation Table of columns 10 and 11 of Whitesage).

As per Claim 5.

Tanner (590) further discloses the categories pass or fail, see figure 3, Avl column.

As per Claim 6.

Tanner (590) further discloses unique visual indicators, see figure 3.

As per Claim 8, 9.

Tanner (590) further discloses a status of complete (Avl), incomplete (n/a), see figure 3.

As per Claim 12.

Tanner (590) further discloses a user query region that enables a user to enter information for a set of slices or trip segments, see figure 3.

As per Claim 13.

Tanner (590) further discloses the query region includes fields to specify origins and destination cities and a time window, see figure 3.

As per Claim 14.

Tanner (590) further discloses the query region includes fields to specify different parameters that control which fares and which airlines are examined, see 3.

As per Claim 15.

Tanner (590) discloses:  
parsing a query to provide at least one city pair corresponding to an origin and a destination, see figure 3;  
retrieving fares and fare rules for each city pair over a time period set in the query, see figure 3;  
evaluating the retrieved fares against the retrieve rules and returning a status corresponding to pass, fail, see figure 3 (Avl);

Art Unit: 3629

producing a summary of the results of the rules the summary indicating the status of each category of rules, see figure 7B; and  
displaying the summary on a user output device, see figures 3, 4A-B.

As per Claim 16.

Tanner (590) further discloses determining whether the summary is complete, likely complete, partially complete or whether the summary is missing information, see figure 3 (Avl).

As per Claim 17.

Tanner (590) further discloses the table is comprised of rows that represent fares, see figure 3, Adult, Approx. Tax, Total and columns that represent rule summaries, see rules.

As per Claim 19.

Tanner (590) discloses:  
populating a summary table of evaluating fare rules and fares with a summary table indicating the status of the rules for each category of rules, see figure 3; and  
render the summary on an output device, see figures 3.

As per Claim 20.

Tanner (590) further discloses the table is comprised of rows that represent fares, see figure 3, Adult, Approx. Tax, Total and columns that represent rule summaries, see rules.

15. Claims 1-6, 8-9, 12-14, 21 rejected under 35 U.S.C. 102(b) as being anticipated by Whitesage (5,191,523).

As per Claim 1.

Whitesage (523) discloses:  
a fare evaluation result table that displays fare rule summaries for fares in slices of an itinerary, see figures 7A-B.

As per Claim 2.

Whitesage (523) further discloses the table is comprised of rows that represent fares, see figures 7A-B, cases 1-4 and columns that represent rule summaries, see fare basis.

As per Claim 3.

Whitesage (523) further discloses the columns also represent price, see figures 7A-B, segment amount without tax.

As per Claim 4.

Whitesage (523) further discloses the columns represent fare combinability restrictions, see figure 7B, case 4 fare basis QE7P25 in which Q represents "controlled" and E represents "excursion" according to the FAREDEX Translation Table of columns 10 and 11.

As per Claim 5.

Whitesage (523) further discloses the categories pass, see figures 7A-B, only results that pass are displayed.

As per Claim 6.

Whitesage (523) further discloses unique visual indicators, see figures 7A-B, flight number.

As per Claim 8, 9.



Art Unit: 3629

Whitesage (523) further discloses a status of complete by the fact that the segment is displayed, incomplete segments are not displayed, see figure 5B, (388).

As per Claim 12.

Whitesage (523) further discloses a user query region that enables a user to enter information for a set of slices or trip segments, see abstract.

As per Claim 13.

Whitesage (523) further discloses the query region includes fields to specify origins and destination cities and a time window, see abstract

As per Claim 14.

Whitesage (523) further discloses the query region includes fields to specify different parameters that control which fares and which airlines are examined, see abstract.

As per Claim 15.

Whitesage (523) discloses:  
parsing a query to provide at least one city pair corresponding to an origin and a destination, see figure 7A-B;  
retrieving fares and fare rules for each city pair over a time period set in the query, see figure 7A-B;  
evaluating the retrieved fares against the retrieve rules and returning a status corresponding to pass, fail, see figure 7A-B (only segments that pass are displayed);  
producing a summary of the results of the rules the summary indicating the status of each category of rules, see figure 7B (fare basis); and  
displaying the summary on a user output device, see figures 7A-B.

As per Claim 16.

Whitesage (523) further discloses determining whether the summary is complete, likely complete, partially complete or whether the summary is missing information, see figure 7A-B (only complete are displayed).

As per Claim 17.

Whitesage (523) further discloses the table is comprised of rows that represent fares, see figures 7A-B, Segment Amount Without Tax and columns that represent rule summaries, see fare basis.

As per Claim 19.

Whitesage (523) discloses:  
populating a summary table of evaluating fare rules and fares with a summary table indicating the status of the rules for each category of rules, see figures 7A-B; and  
render the summary on an output device, see figures 7A-B.

As per Claim 20.

Whitesage (523) further discloses the table is comprised of rows that represent fares, see figures 7A-B, Segment Amount Without Tax and columns that represent rule summaries, see Fare Basis.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3629

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 10-11, 18, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitesage (5,191,523) or Tanner (WO 01/59590) in view of Kirk (5,768,578).

As per Claim 7.

Whitesage (523) and Tanner (590) do not disclose the results in different colors for pass, fail or defer.

Kirk ('578) teaches the display of different color, underlining or italics in a document with a mixture of text, graphics and hyperlinks, see column 26, lines 47-55 to distinguish the colored portions to attract the user's attention.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to distinguish areas in a presented page by different color, underlining, or typeface as taught by Kirk ('578) to distinguish text to attract the user's attention.

As per Claim 10.

Whitesage (523) and Tanner (590) do not disclose the results represented by unique visual indication.

Kirk ('578) teaches the display of different color, underline or italics in a document with a mixture of text, graphics and hyperlinks, see column 26, lines 47-55 to distinguish the colored portions to attract the user's attention.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to distinguish areas in a presented page by different color, underlining, or typeface as taught by Kirk ('578) to distinguish text to attract the user's attention.

As per Claim 11.

Whitesage (523) and Tanner (590) do not disclose the results represented by change of typeface.

Kirk ('578) teaches the display of different color, underline or italics in a document with a mixture of text, graphics and hyperlinks, see column 26, lines 47-55 to distinguish the colored portions to attract the user's attention.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to distinguish areas in a presented page by different color, underlining, or typeface as taught by Kirk ('578) to distinguish text to attract the user's attention.

As per Claim 18.

Whitesage (523) and Tanner (590) further disclose the table where rows represent fares, see figures 7A-B of Whitesage and figure 3, Adult, Approx. Tax, Total of Tanner and columns that represent rule summaries, see Fare Basis in Whitesage and Rules in Tanner;

Tanner (590) does not disclose applying a color to cells of the table with the color scheme signifying whether the cell corresponds to pass, fail or defer status.

Kirk ('578) teaches the display of different color, underline or italics in a document with a mixture of text, graphics and hyperlinks, see column 26, lines 47-55 to distinguish the colored portions to attract the user's attention.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to distinguish areas in a presented page by different color, underlining, or typeface as taught by Kirk ('578) to distinguish text to attract the user's attention.

As per Claim 21.

Art Unit: 3629

Tanner (590) does not disclose applying a color to cells of the table with the color scheme signifying whether the cell corresponds to pass, fail or defer status.

Kirk ('578) teaches the display of different color, underline or italics in a document with a mixture of text, graphics and hyperlinks, see column 26, lines 47-55 to distinguish the colored portions to attract the user's attention.


Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to distinguish areas in a presented page by different color, underlining, or typeface as taught by Kirk ('578) to distinguish text to attract the user's attention.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Dixon whose telephone number is (703) 305-4645. The examiner can normally be reached on Monday - Thursday 6:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss can be reached on (703) 308-2702. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thomas A. Dixon  
Primary Examiner  
Art Unit 3629

October 04